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Briscoe, Kurt G. Norris McLaughlin & Marcus, PA 875 Third Avenue, 8th Floor New York, NY 10022			EXAMINER PATEL, RONAK C	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,109	Applicant(s) KULPER ET AL.	
	Examiner RONAK PATEL	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "firmly" in claim 1 is a relative term which renders the claim indefinite. The term "firmly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 3 recites the limitation "the individual piles" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806)

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7. Regarding claims 1-2, 5, 7-12 Samson-Himmelstjerna discloses an adhesive tape for bandaging cable harnesses (abstract) comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027), Suitable material envisaged for the textile backing include, in particular polyester or cotton fibers (para 0050) and the interlayer is composed of double sided adhesive tape (para 0056) and also discloses the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m², which falls in the range of claim limitation (para 0085) and discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based on different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057), the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, which reads on the claim 5, the interlayer is composed of double sided adhesive tape (para 0055), as can be seen in the figure para 0055. Samson-Himmelstjerna also discloses adhesive coating applied to the backing has a basis weight of 25 to 80 g/m² (para 0085) and also discloses the self adhesive compounds such as polyacrylates or silicones (para 0057). Samson-Himmelstjerna discloses a method for wrapping an elongate product guiding tape in a helical spiral around the elongate product, which also covers the elongate product in its axial direction (para 0019), a method of wrapping an elongate product, especially cable harnesses with a tape (abstract), Samson-Himmelstjerna discloses a backing layer having an outer layer

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and second outer layer composed of polyester and double sided adhesive composed of self adhesive compound such as acrylate or silicone adhesive similar to the used by the applicant of the present invention, it therefore would be inherent that the adhesive tape for cable harnesses is highly abrasion resistant.

8. It would be obvious to one of ordinary skill in the art at the time of invention to optimize routine experimentation and chose the basis weight between 30 and 80 g/m² for the inter layer C to get the desired thickness to have improved structural strength and rigidity of the adhesive tape. As set forth in MPEP 2144.05, in the case where the claimed range “overlap or lie inside ranges disclosed by the prior art”, a *prima facie* case of obviousness exists, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

9. Regarding claim 3, Samson-Himmelstjerna discloses an abrasion resistant tape for bandaging cable harnesses comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027) and the interlayer is composed of double sided adhesive tape (para 0057). However, Samson-Himmelstjerna fails to mention that the abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 “scrape abrasion resistance”) is at least 150% of the sum of the abrasion resistance of the individual piles.

10. However, Samson-Himmelstjerna discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive

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based of different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057) and the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m², which falls in the range that the applicant has disclosed in his specification. Samson-Himmelstjerna also discloses the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, similar to the backing material as used by the applicants in his invention and also it is not found that the production methods of these are meaningful different. Therefore, it would be expected that they would intrinsically exhibit similar or substantially similar properties having abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 "scrape abrasion resistance") is at least 150% of the sum of the abrasion resistance of the individual piles.

11. The Patent and Trademark Office can require Applicant to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on Applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 U.S.P.Q. 431 (CCPA 1977).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Lodde (US 2002/0053392).

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13. Regarding claim 6, Samson-Himmelstjerna fails to disclose that the double sided backing is applied with viscoelastic adhesive layer. However, Lodde discloses an adhesive tape for covering longitudinally extended products such as cables (abstract), which is provided with one side self adhesive layer in slight contact with two adhesive layers lying on one another (claim 1). The motivation for using the adhesive agents used for adhesive tapes that are viscoelastic adhesives is to have permanent adhesive capacity at room temperature, in solvent free form and with a slight contact pressure, adhere to almost all substrates (para 0003).

14. In light of the motivation for applying viscoelastic adhesive on to a double sided backing as taught by Lodde as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer C which is composed of double sided adhesive of Samson-Himmelstjerna with the basis weight in the range of 25 to 80 g/m² with the viscoelastic adhesive of Lodde which is used in the adhesive tape for cable harnesses to have permanent adhesive capacity at room temperature, in solvent free form and with a slight contact pressure, adhere to almost all substrates (para 0003).

15. Claims 1-3, 5, 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Zafiroglu (US 7622408)

16. Regarding claims 1-2, 5, 7-12, Samson-Himmelstjerna discloses an adhesive tape for bandaging cable harnesses (abstract) comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers

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comprising backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027), Suitable material envisaged for the textile backing include, in particular polyester or cotton fibers (para 0050) and the interlayer is composed of double sided adhesive tape (para 0057) and also discloses the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m², which falls in the range of claim limitation (para 0085) and discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based on different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057), the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, which reads on the claim 5, the interlayer is composed of double sided adhesive tape (para 0055), as can be seen in the figure para 0055. Samson-Himmelstjerna also discloses adhesive coating applied to the backing has a basis weight of 25 to 80 g/m² (para 0085) and also discloses the self adhesive compounds such as polyacrylates or silicones (para 0057). Samson-Himmelstjerna discloses a method for wrapping an elongate product guiding tape in a helical spiral around the elongate product, which also covers the elongate product in its axial direction (para 0019), a method of wrapping an elongate product, especially cable harnesses with a tape (abstract), Samson-Himmelstjerna discloses a backing layer having an outer layer and second outer layer composed of polyester and double sided adhesive composed of self adhesive compound such as acrylate or silicone adhesive similar to the used by the applicant of the present invention, it therefore would be inherent that the adhesive

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tape for cable harnesses is highly abrasion resistant. However, while Samson-Himmelstjerna discloses the preferable range for the basis weight of interlayer C which overlaps slightly with the claimed range, there is no disclosure of specific basis weight as presently claimed. Whereas, Zafiroglu discloses a multilayer composite, this includes a face layer, an adhesive layer and a backing layer (abstract), the adhesive layer being the interlayer between the face layer and the backing layer. The adhesive layer contains thermoplastic or thermosetting adhesives, suitable material includes PE, PP, suitable basis weight for adhesive layer range from 4 oz/yd² to about 10 oz/yd², by converting 4 oz/yd² to grams/m², we get 135 g/m² and converting 10 oz/yd² to grams/m², we get 339 g/m² (col. 4, lines 48-53), which does fall in the range of the claimed basis weight for the interlayer. The motivation for having a basis weight between 135-339 g/m² of the inter layer is to form a composite material with improved structural strength and rigidity (col. 5, lines 10-13).

17. In light of the motivation for having the interlayer with the basis weight in the range of 135-339 as taught by Zafiroglu as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer C of Samson-Himmelstjerna with the basis weight in the range of 135-339 g/m² of Zafiroglu to make the adhesive tape with improved structural strength and rigidity.

18. Regarding claim 3, Samson-Himmelstjerna discloses an abrasion resistant tape for bandaging cable harnesses comprising a backing layer having two layers and an interlayer having an adhesive composition use to laminate the two layers comprising

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backing material (Para 0056). Samson-Himmelstjerna also discloses the backing material for the adhesive tape can be composed of woven or knits (para 0027) and the interlayer is composed of double sided adhesive tape (para 0057). However, Samson-Himmelstjerna fails to mention that the abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 "scrape abrasion resistance") is at least 150% of the sum of the abrasion resistance of the individual piles.

19. However, Samson-Himmelstjerna in view of Zafiroglu discloses that the adhesive composition used in the interlayer being composed of viscoelasticity adhesive or double sided adhesive based of different polymer system, with natural or synthetic rubber and polyacrylates or silicones (para 0057) and the inter adhesive coating applied to the backing has a basis weight of 25 to 80 g/m², which falls in the range that the applicant has disclosed in his specification. Samson-Himmelstjerna also discloses the base materials of the backing may be chosen from the woven belt of glass fiber, polyester or polyamide, similar to the backing material as used by the applicants in his invention and also it is not found that the production methods of these are meaningful different.

Therefore, it would be expected that they would intrinsically exhibit similar or substantially similar properties having abrasion resistance of the backing (measured in accordance with ISO 6722, section 9.3 "scrape abrasion resistance") is at least 150% of the sum of the abrasion resistance of the individual piles.

20. The Patent and Trademark Office can require Applicant to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are

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produced by identical or substantially identical processes; burden of proof is on Applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 U.S.P.Q. 431 (CCPA 1977).

21. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) and Zafiroglu (US 7622408), further in view of Lodde (US 2002/0053392).

22. Regarding claim 6, Samson-Himmelstjerna in view of Zafiroglu fails to disclose that the double sided backing is applied with viscoelastic adhesive layer. However, Lodde discloses an adhesive tape for covering longitudinally extended products such as cables (abstract), which is provided with one side self adhesive layer in slight contact with two adhesive layers lying on one another (claim 1). The motivation for using the adhesive agents used for adhesive tapes are viscoelastic adhesives to have permanent adhesive capacity at room temperature, in solvent free form and with a slight contact pressure adhere to almost all substrates (para 0003).

23. In light of the motivation for applying viscoelastic adhesive on to a double sided backing as taught by Lodde as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer C which is composed of double sided adhesive of Samson-Himmelstjerna with the basis weight of Zafiroglu in the range of 135-339 g/m² with the viscoelastic adhesive of Lodde which is

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used in the adhesive tape for cable harnesses to have permanent adhesive capacity at room temperature, in solvent free form and with a slight contact pressure adhere to almost all substrates (para 0003).

24. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) in view of Tanaka et al. (US 2003/0118769).

25. Regarding claim 4, Samson-Himmelstjerna fails to disclose that the interlayer C has the thickness of 50 to 1000 micrometer. However, Tanaka discloses a pressure sensitive adhesive sheet having a base material layer 11 between the release agent layer and coat layer as shown in figure 1 (para 0027). The pressure sensitive adhesive layer has a thickness from about 3 to 5000 micrometer (para 0035). The motivation for having the pressure sensitive adhesive layer to be in the range of about 3 to about 5000 micrometer to have a good adhesive strength that can adhere to the outerlayers effectively.

26. In light of the motivation of having the base material layer with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer of Samson-Himmelstjerna with the thickness in the range of 1 to 5000 micrometer as taught by Tanaka to form an adhesive tape with good adhesive strength.

27. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samson-Himmelstjerna et al. (US 2003/0198806) and Zafiroglu (US 7622408), further in view of Tanaka et al. (US 2003/0118769)

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28. Regarding claim 4, Samson-Himmelstjerna in view of Zafiroglu fails to disclose that the interlayer has the thickness in the range of about 50 to 1000 micrometer, whereas, Tanaka discloses a pressure sensitive adhesive sheet having a base material layer 11 between the release agent layer and coat layer as shown in figure 1 (para 0027). The pressure sensitive adhesive layer has a thickness from about 3 to 5000 micrometer (para 0035). The motivation for having the pressure sensitive adhesive layer to be in the range of about 3 to about 5000 micrometer to have a good adhesive strength that can adhere to the outerlayers effectively.

29. In light of the motivation of having the bas material layer with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to have the interlayer of Samson-Himmelstjerna with the thickness in the range of 3 to 5000 micrometer as taught by Tanaka to form an adhesive tape with an good adhesive strength.

Response to Arguments

30. Applicant's arguments see page 2, lines 4-15 filed 11/06/2009, with respect to claim 4 have been fully considered and are persuasive. The Rejection of claims 1-11 has been withdrawn.

31. Applicants argue that there would be no motivation for one of ordinary skill in the art to make and use embodiment in Samson-Himmelstjerna falling within the scope of the present claims. However, as set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a prima facie

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case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Therefore absent evidence to the contrary, it would have been obvious to one of ordinary skill in the art, to use adhesive with basis weight, including that presently claimed, and thereby arrive at the present invention. Applicant's argues that the data reported on page 14 as summarized in table 2 on page 14, and table 3 on page 16, establishes criticality by showing that very high abrasion and scuff resistance are achievable only if the basis weight of interlayer C is manipulated within the presently considered ranges have been considered, however, the data is not persuasive. Applicant has shown the example in table 2 and 3 with a particular kind of woven PET fabric and acrylate adhesive and a textile backing, the data reported on table 2 and 3 are for these specific woven fabric and adhesive and it cannot be said that the same data would be guaranteed if any other woven fabric or adhesive used. Specifically, the data is not commensurate in scope with the scope of the present claims given that there is only data for one specific type of first and second outer layers and three specific types of adhesive while the present claims broadly recite outer layers composed of woven or formed-loop knit and viscoelastic adhesive, self-adhesive, and double sided adhesive tape. Further, there is no data at the upper end and lower end of the presently claimed basis weight range. As set forth in MPEP 716.02 (d), whether unexpected results are the result of unexpectedly improved results or a properly not taught by the prior art, "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support". In other words, the showing of unexpected results must be reviewed to see if

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the result occurred over the entire claimed range, *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). Applicant have not provided data to show that the unexpected results do in fact occur over the entire claimed range of 40 to 600 g/cm².

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONAK PATEL whose telephone number is (571)270-1142. The examiner can normally be reached on Monday to Thursday 8 AM EST to 6PM EST.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. P./

Ronak Patel

Patent Examiner, Art Unit 1794

01/14/2010

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794